

Selection and Use of Standard Storage Media for Preservation of Digital Records

Policy

In order to ensure long-term preservation and accessibility of digital records, storage media and technologies must be considered for both on-line and off-line storage. The Georgia Archives will select storage media that:

- Are affordable and suitable,
- Have a high data transfer rate,
- Have a high storage capacity,
- Have a twenty year life-expectancy, and
- Are widely implemented (an established and stable market presence).

A high storage capacity and data transfer rate are the most critical of the above because ultimately they drive the time required to transfer digital records during media copying and reformatting (this is more of an issue as the Digital Archives is measured by terabytes and petabytes). These same criteria will be used in the selection of back-up media for disaster preparedness purposes¹.

Media Renewal

Limited media durability and technology obsolescence make periodic renewal an inevitable and base-line requirement for ensuring long-term access to digital records. Media renewal will be accomplished in two ways – reformatting and copying.

Policy

Reformatting will be utilized for media renewal in the following instances:

- Reformatting upon transfer: Digital records transferred on CD-R will be reformatted to a standard storage medium when transferred to the Digital Archives.
- Reformatting upon upgrade: Reformatting is justified when the storage technology is upgraded and storage devices replaced.
- Scheduled reformatting: Reformatting will be scheduled based on the projected life expectancy of the storage medium.

Copying will be utilized for media renewal in the following instances:

¹ Refer to the Digital Archives Preservation Strategy for examples of storage media that are under consideration.

- Copying upon transfer: Digital records transferred on a standard storage medium will be copied using a medium of the same format specification to create a preservation copy.
- Copying upon media errors: Copying is justified when an annual sampling of storage media shows a high number of readability problems while no media or device upgrades are necessary.
- Scheduled copying: Copying should occur when the storage medium is aging, although no media or device upgrades are necessary. It is projected that media copying will occur mid-way through the projected life expectancy of a storage medium.

The procedures for implementing this policy will result in the creation of a reliable chain of custody for the digital records. Information collected during media renewal will include but not be limited to: who executed the process, the date it occurred, the format of the data, a comparison of hash digests, and a visual comparison of the reformatted records.